Bruegel and Ortelius
Space as cognitive system

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> *It is landscape, not the story, that commands attention.*
> Walter S. Melion, *Shaping the Netherlandish Canon. Karel van Mander's Schilder-Boeck* (Chicago and London, The University of Chicago Press, 1991)

Abstract
Returning to Ortelius and Bruegel sixteen years after writing my book about the geographer, I find subsequent studies emphasize similarities between Ortelius, Bruegel and Sebastian Franck's paradoxical moral thinking, perhaps through Dirck V. Coornhert's works.
This common familiarity with the complexity of human choice influenced the thinking of both the artist and geographer.
But Ortelius permits us to also find more cultural analogies in the idea of space as cognitive and meaningful structure practised by Bruegel in his paintings and in Ortelius's maps.
The paper examines in which ways the notion of *Landscape*, as setting and distribution of sights in the representational space, was employed in maps and in paintings (such as in botanical atlases) of 16th century Low Countries, upon a more or less open codified system of references, which confirm an intertextual common language and culture in the humanistic circle of Antwerp, to which Ortelius and Bruegel belonged, which has been useful to better understand eventual meanings of Bruegel's works.

1. *Back to Antwerp, after sixteen years*

The invitation to take part in this seminar gives me the opportunity to reread and reconsider certain
thoughts that I had proposed in 1998 with my essay on Abramo Ortelius (*Il "mondo" di Abramo Ortelio. Misticismo, geografia e collezionismo nel Rinascimento dei Paesi Bassi*).[1] a chapter of which was dedicated to his relationship with Pieter Bruegel the Elder (Fig. 1).
Then, as today, my analysis was not that of an art historian, which I am not, but of a historian of geographical thinking and, for this reason I attempted to understand the possible cultural and scientific context in which the perception and appreciation of Bruegel were formed, considering the role, by then established, attributed to Ortelius, who was a geographer, in favouring and perhaps affecting the way the great artist was received.

My analysis had in synthesis proposed:
(a) that Bruegel could have represented in some of his paintings, themes and moral, religious and political questions discussed by Ortelius and the humanistic environment that he frequented;
(b) that some of these themes were shared by the circle of affiliates of the "Family of Love", the sect or religious clandestine congregation created by Hendrik Niclaes around 1540, also active in Antwerp;
(c) that Ortelius had exerted an important influence upon the reception of Bruegel's work among rich merchants, collectors and also artists of northern Europe, affecting the interpretation of his works.
Analysing some of these points and guided by the interpretation of acknowledged specialists, I had in fact suggested at that time the theory that Ortelius's thinking had inspired some of Bruegel's themes, confirming the thesis that assumed a certain connection between the painter and the familist movement, as sustained by De Tolnay (1935),[2] Stridbeck (1956),[3] and Ferber (1966).[4]
Reading the essay after 16 years and following some of the subsequent studies, I seem to find confirmed, in conclusion, an affinity between both of their thinking, but it is probable that a large part of the themes which, in 1998, I considered to be "Ortelian", were in reality arguments shared by a wider humanistic environment and that Ortelius's influence upon collectors of Breugel's works was manifest perhaps in the artist's later years and after his death.
As noted by Walter Gibson,[5] in the 1540s, Ortelius was not rich enough to afford works by Bruegel and the drawing of *The death of the Virgin* was probably a gift. The circulation of this drawing as an etching that Ortelius commissioned to Phillippe Galle was also long after Bruegel's death and the atlas edition.
In 2004 Jason Harris[6] returned to the question of Ortelius's so-called Familism, sustaining the thesis of a less organic relationship than I did (in that I did not express myself in favour of a real conversion).

Harris in summary sustains that:
(a) the sect did not consider itself to be an exclusive community;
(b) that its members did not consider themselves as being part of a separate organism and looked upon Niclaes more as an inspirer,
(c) that his writing was rather obscure, and therefore not everyone was able to understand it.

In the end, I can confirm what I sustained in 1998, that Ortelius, and perhaps also Bruegel, were acquainted with and quite liked this environment, but probably no more than that; that Ortelius's relations were also good with other milieux such as the Protestants and Catholics, in the conviction, moreover characteristic of the Familists, that one formalized religion was as good as another, seeing as attention was mainly focused on the individual dimension of religious sensibility.
Harris' work, however, bears out my thesis of the strategic character, in the religious thinking and morals of Ortelius, of the antinomic dimension that is also manifest in

his motto *contemno et orno*. This Ortelian expression paraphrased the twofold attitude of the crying and laughing on the world stage which was very widespread, playing however, on the double meaning of the verb *orno*, which also refers to the activity of *inluminator* of maps, which Ortelius had experienced. The *ornatus* was also the system of symbols used on maps to signify political, moral and philosophical meanings, not just geographical; the expression therefore had a certain polysemy. The antinomic character of Ortelius's motto confirms the affinity with the paradoxical thinking of Sebastian Franck which I had widely suggested in my book, recalled explicitly (even if only with the initials S. F.) in the letter to Ortelius's nephew of 1592, in which Ortelius declares himself to be against every form of "visible church".[7]

It is therefore within this ethical-religious paradigm that the friendship first developed between Ortelius and Dirck V. Coornhert, follower of Franck and in a way also popularizer of his ideas in some of his important etchings, among which some that were considered central also for Bruegel and Ortelius such as *Democritus and Heraclitus* (Figs. 2, 3). Coornhert remains friend with Ortelius until they fall out over the criticisms of opportunism raised against Lipsius (and perhaps also Ortelius), great friend of the geographer and in my opinion, heir to his ethical-religious knowledge, so much so that he was also represented with physical similarities.

A dialogue between Coornhert and Ortelius, published posthumously in 1630,[8] which perhaps echoes discussions that had already taken place, lead one to understand that there was also criticism of Ortelius.

The geographer was represented as a sceptical individualist, supporter of a kind of incommunicability that Coornhert brands as egoism.

Ortelius, for his convictions – it is written – does not give back to the community that which he has received, and even his atlas, which was so celebrated in humanistic circles in north Europe as an almost Messianic work, a contribution to political and religious reconciliation, for Coornhert, it is confirmed, behind the rhetoric, it is a business operation, more than of moral significance.

For these reasons and due to the dispute with Lipsius, Coornhert was finally cancelled from Ortelius's *Album amicorum*.

Harris's analysis confirms in any case, apart from his relationship with the Familists, the central character of the "paradoxical" analysis of Franck in Ortelius's thinking (considered by Jürgen Müller as source of inspiration also for Bruegel),[9] overturning continually the apparent and superficial logicality of things, taking care to identify a moral choice conceived as a sort of equation with multiple solutions, always connected to individual choice and never axiomatic, that Ortelius and Bruegel probably shared and seems confirmed by the studies of Sullivan (1994),[10] Gibson (2006),[11] Richardson (2011),[12] and recently Kaschek.[13]

And probably using this reading key, some questions asked several times and not answered, like those which emerge in the diatribe of Svetlana Alpers[14] and Messel Miedema,[15] can perhaps find reconciliation.

As is well known, Alpers suggested that the representations of Dutch peasants of that

period should be read in relation to the interest in widespread comedy in the Netherlands through theatre and literature, while Miedema had objected that art should actually be interpreted with its moralizing function and for this reason the acculturated environments of the time, such as those frequented by Ortelius and Bruegel, were not willing to consider humour as appropriate.
As the analysis was formulated for the most part using Bruegel's pictures as evidence, the debate was transferred to Bruegel specialists, thus qualifying the interpretation of his works. The diverse analysis proposed by Sullivan and Gibson today summarizes the debate with the question of whether Bruegel was being conceptual in his attitude, whether his works transmit a specific critical thinking, if not actually esoteric, as De Tolnay sustained (theory today being revised), and whether this thinking was in favour or against the peasants.

The role of Ortelius is central from both points of view in the interpretation of Bruegel.
Ortelius had in fact sustained that Bruegel had produced "works from nature" and represented "things that cannot be painted", opening the door to a conceptual interpretation of his work, developed into an esoteric key (and close to Familism) as in De Tolnay and Popham.[16]
Sullivan, working to reconstruct the humanist and collectors' environment which surrounded Ortelius and his role as mediator for Bruegel, for whom there was a "community of interpreters", he retained that the hanging of certain works in the Antwerp collectors' dining room allowed a sophisticated interpretation of the peasant world, which wanted to update the antique model of the symposiums and therefore stimulate two-sided discussions to address moral themes.
From this point of view, the theme of the peasant world, which was central in the Netherlands offered *exempla* which could suggest multiple answers, perhaps even antithetical ones, but all the same able to reveal a generally unfavourable perception of the excesses of peasant life on the part of a rather moralistic society, that loved self-control, hard work and tended towards neostoicism, as was well represented by Ortelius and his circle.
Gibson, for his part had noted that certain of Bruegel's collectors who had hung these pictures in their dining rooms were not cultured enough to be able to sustain debates of this kind and they probably had a more kindly attitude and were more indulgent towards humour, in the context of a general interest in the countryside and rural life, as documents testify.

I must state now that the observations in the following paragraph are in support of Sullivan and Richardson's thesis and help to understand some of the complex mechanisms of Bruegel's painting that the documents demonstrate were perfectly familiar to Ortelius's circle.
I fear, in fact, that Gibson's analysis, with its intention of simplifying things, is too generalized. This interest in the countryside is typical of modern nation-states and is called "invention of traditions"[17] by political historians, and the Netherlands in strict

economic political and religious competition with Spain, England and the Papacy, in the 16th to 17th century, developed quickly.
The celebration of rustic life, which was fashionable in Europe and Italy, in the Netherlands had an additional motive, it utilized the supposed Dutch identity – a country rescued physically from the sea – and tried to promote the "naturalness" and ethnic homogeneity of the nation. Such was the case with the production of maps of the Dutch United Provinces which represent the national territory in the shape of the *Leo Belgicus* (whose first appearance in print was in 1583, fig. 4), an iconographic synthesis of a zoological shape which implies an organic State unity.[18]
This strategy was also nourished by the northern Humanist tradition such as that of Konrad Celtis, who tried to demonstrate the dignity and superiority of northern cultures compared to the Latin world. The man of letters, Goropius Becanus, friend of Ortelius and Plantin, had for example sustained that the Belgian language was the closest to the language of Adam, preceding Hebrew.
The peasant that Bruegel chose as protagonist for many of his paintings represented therefore the characters of the Belgian nation, but this was a much more general discussion on nationality where Ortelius and Bruegel constructed their specific vision, aimed at celebrating the dignity and refinement of Dutch culture as not being inferior to Italian culture.

2. *Bruegel and Ortelius' space: a cartographic seeing and writing*

Within this interpretative context, I shall try to propose some thoughts concerning the profound coherence that may be deduced between the cultural world of Bruegel and that of Ortelius, despite their different means of expression.
Walter S. Melion back in 1991,[19] had emphasized, after studying the construction of the Dutch artistic "canon" proposed in Karel van Mander's *Schilder-boeck*, the deep homogeneity in the perception of time, in the landscapes of Bruegel with Ortelius's maps, and the role of the cartographer in Bruegel being accepted as founder of the school of northern art.
According to Melion, van Mander's idea was that the painting of Dutch history, considered by the Humanists as the most important, had originally introduced the technique of the so-called (in Dutch) *stellingh*, the spatial organisation of figures and objects which condition the movement of the glances in the picture and render its meaning more articulate and complex.
This technique is particularly identified with landscape painting in which Bruegel excelled. He told multiple and more refined narratives representing places, plants, colours and the setting of his figures which accompany the viewer's journey within the picture.
The introduction of depth for example, the *parerga* (another Ortelian expression that he used to name his historical atlas, *Parergon,* fig. 5) allowed a double internal reading of the picture, that of the foreground and the background, which is typical of Bruegel's pictures, often used to reverse an apparent, superficial interpretation and force the viewer to analyse more deeply. Behind van Mander's interpretation, still

according to Melion, there was Ortelius and his circle of friends and correspondents, all attempting to integrate Vasari's artistic "canon" with the excellence of the Northern School. It was in fact in this environment that van Mander's proposal matured.

Lampson's *Vita Lombardi*, which moves in this direction, is dedicated to Ortelius, who also distributes copies of *Lives of the Artists* by Vasari to some of his friends.

The most significant factor was that the very celebration of this Dutch vernacular canon was perceived as similar to the propaganda of that period to be found in written and published chorographical descriptions. Van Mander, for example, uses the Dutch word *Beschrijven* to name an unpublished poetical work by his master Lucas De Heere, dedicated to the great Dutch masters, used by the same De Heere for a chorographic work, written between 1568 and 1576, on the British Isles (*Beschrijving der Britsche Eilanden)*[19] and uses the same term for his geography book translation, the *Storia del nuovo mondo* by Girolamo Benzoni published in 1610 (*De Historie van de Nieuwe Weerelt, te weten, de Beschrijvinghe van West-Indien*).[20] The expression could be translated as *Historia* and also as *Descriptio*, a term often used for maps.

Also the celebration of Bruegel's painting, who was understood as founder of the northern canon is influenced by the ways in which Ortelius's atlas was perceived in his circle. All the authors of the laudatory texts which appear in his *Album Amicorum* celebrate in particular the *Theatrum orbis terrarum* for its capacity to offer perceptions of far away places, enabling the mind to travel. The same interpretative model is used by van Mander to describe Bruegel's landscape technique, which is able to lead the viewer across the dislocation of the objects represented.

It is for this reason that, in his eulogy of Bruegel, Ortelius uses the examples of Eupompus and Timanthes quoted by Plinius the Elder. Eupompus had been the founder of another "regional" school, that of Sicion, and Timanthes had painted complex subjects using the technique of suggestion, that is, only evoking subjects, without representing them clearly. Ortelius's atlas was therefore celebrated as a collection of large scale landscapes and Bruegel's landscapes were celebrated as complex representations similar to maps.

This function was closely connected to the technique of the art of memory which in ancient times was already associated with rural and urban landscape painting and was founded on the principle of *imagines ad verba*, which was the essence of 16th century cartography. The perspective plans of the city, as the cartographic representation of the regions and territories were founded, in fact, as I have tried to explain in my *Cartografia morale*,[21] on the systematic use of "discussions" already known in the context of reception of these works, as historical texts, information and anthropological curiosities on the places in question, which referred in a systematic way through codified figures and notes to the interpreters.

The map of the Tartaria of Ortelius's T*eatrum orbis terrarum,*[22] for example, featured the city of Arsazeth, which was the region where the ten lost tribes of Israel were transferred according to one of Postel's theories (a French geographer), who had also sustained that, once there, they changed their name to Goths (*Hic 10 tribus secessere,*

et totarorum sive tartarorum loco Scÿthice substituerunt. Unde Gautheÿ seu Gauthaÿ a summa Dei gloria asserenda ibi dicti sunt, et hinc Cathaÿ clarissimum regnum). Postel is not quoted there, but in the field of science, the argument was well known. The views of the most important palaces in a city, which are instantly recognizable, are also used in maps today to refer to the city, instead of, or next to the alphabetic transcription.

Not only this kind of allusive communication was characteristic of maps, but originally, cartography was not used to represent geographical places, as much as rhetorical "loci", using topographical and geographical figures. To help in the wording or in the memorization of textual compositions, all the ancient traditional rhetoric, from Cicero to Quintilian, had used this specific method, that is of using "palaces" or "cities" of memory (Fig. 6), used as mnemonic containers of concepts represented through the use of figures. It was not by accident that the 15th century *lettucci*, little sofas, were used to find the most comfortable position for rhetorical composition and were normally decorated with urban or geographical images similar to Roman *cubicula*, likewise used for composition. When an ancient rhetor had to imagine and write a text, he would go to bed.[23]

This capacity to communicate verbal information through images rendered maps an "expert" system of representation. This was by no means lost during the 16th century transformation of culture, in the age of the Gutemberg revolution.

The development of elaboration and pagination techniques of illustrated books, from the 15th century, handwritten and xilographically printed, such as those used for the "books of hours", use space in such a way that betrays an intimate dialogue between the images and writing, according to an integrated logic which also influences painting. The figures, full of meaning, interact with the written text, while the text tends to refer implicitly to the accompanying images in their narrative.

16th century printed atlases (anatomical, botanical and geographical) continue to use this model of rhetoric and cognitive organisation of space, giving the images a central role. Depending on how the material is organised, however, the text has the function of implementing "additional" information (historical, anthropological, etc), to that of the images, while the images are enriched with "ciphered" references, cross-references, quotations, references to the written text which contaminate the iconographic codex to enrich it with references traditionally more connected to the expressive form of writing.

This elaboration of the "narrative" space was defined by Tom Conley,[24] as *cartographic writing*, a procedure that reveals the "signature" of the author with this specific style of writing. The ways of using the space within the page thus become the identifying pattern of the author's identity, who tends to represent himself in his work as on a journey or a map.

Oronze Fineus, for example, geographer to the king of France, disseminates his work with his own portrait or signature, and places his native city at the crossing point of the grid of his map of France published in *Sphere du monde* (1551).

Behind this enunciative rhetoric there is an awareness of the narrative and

promotional function of the spatial arrangement of the material used. The French cartographer Maurice Bouguerreau in his *Theatre françois* (1594), who imitated the editorial structure of Ortelius's atlas, uses it as a tool of convincement of the political "unity" of France during the reign of Henry IV. In difficult years for the French monarchy, he produces a unitary collection of geographical regions which were still a long way from being united in a national political structure. The atlas, using rhetorical geography to represent the nation, shows it united before its effective political reconciliation, thus having the function of propaganda.

In the same way Ortelius had represented in his universal atlas the national states "connected" together (in the typographic-editorial sense of the term), in the wake of Sebastian Franck's idea (who considered national divisions absurd), of foretelling, as in fact was often stressed in the texts and short congratulatory poems that appeared in his *Album Amicorum*, the end of religious fighting and a peaceful living together.

An awareness of this deceptive nature in this way of handling images and texts is demonstrated, as Tom Conley has again pointed out, on the title-page of Bouguerreau's atlas (Fig. 7a), in which the portrait of Henry IV coincides with the picture of the unified individual maps, that is, the map of the state. Regal body and Government body thus become opposable; while the figure of Geography on the title-page is presented in the act of looking at a map of the world, which as in the anamorphosis, looks like a human face. The Gorgon, in the centre of the page, from above, stares at the reader implicitly referring to the risks connected to the act of "looking" (Fig. 7b).

These observations demonstrate that there existed a precise awareness of the artful and complex character of these images and their extraordinary persuasive power.

We find a very similar attitude in many of Bruegel's paintings, for which the recent study by Richardson has tried to trace the "discussions", the forms of the implicit "conversation" that operate in the relative intertextual procedures, in the wake of the discovery of a possible "community of interpreters", already suggested by Sullivan, and of the effect that might have had on the way the work was received.

The *Peasant Wedding Banquet* (Fig. 8), for example, is spatially quite complex: the placing of the socalled "visitors" away from the centre of the scene, the incongruousness of the legs of the porridge bringers in the centre, the presence of the earthen teapots on the ground which might allude to the loss of virginity of the bride and to a possible reparative marriage. This has led to critics speaking of a "machine to look through", or even "behind" the things represented.

The enunciative lay-out of the painting, as with many others by Bruegel, is similar to cartographic logic, in which every sign has a meaning in relation to the place it occupies, and which was universally considered as a system for seeing "beyond", in order to reach far- away places in cognitive terms.

Maps and globes were in fact perceived in a similar manner to "letters", which were able to provide information from far away. The cartographer and Elizabethan magician John Dee, friend of Ortelius and Mercator, used small crystal globes to see from afar (Fig. 9), during mediumistic sessions with the help of spirits. He did it in the same way in which the globes, atlases and maps were celebrated as instruments

for seeing far-away places and to root this kind of perception profoundly in the imagination and memory, as Ortelius stressed in the introduction of *Theatrum*, considering his maps as emblems, that is as complex systems of representation in which texts and images operated in close connection.

3. *Favouring critical choice and interpretative effort*

Another aspect of this communicative relationship between pictures and maps has a temporal and moral character, that is, the capacity in Bruegel's pictures to introduce the viewer immediately "inside" the scene, playing at making him feel in the middle of the representation. Ju¨rgen Muller has spoken of "immediacy" in the *Peasant and Nest Robber* (Fig. 10). The character in the foreground, painted very large, sees and indicates the nest robber who is about to fall from the tree and censures his action, probably drawing moral reflection, but he too is about to fall into the river towards which he is walking, becoming in his turn an object of fun. The mechanism is analogous to the scene in the *Misanthrope* (Fig. 11), however one wishes to interpret it. The old man fleeing does not notice the thief who is taking his bag, but he does not realize that he is about to tread on some nails spread on his path.
Moral choice is not therefore always a choice between two solutions, good and bad, so to speak predictably, but it is an original personal and creative choice.
Both pictorial examples (there could be many more) share with the communicative logic of maps the apparent immediacy, the illusion of an apparently naturalistic representation, characteristic of cartography which is instead structured on a system of signs able to provide systematic information, according to a morphology and a codified system of meanings, whose deceptive character was well known. Ortelius had spoken about "Geography eye of history", that is, of a rhetorical technique able to present the historical narration through the description/representation of places, a theatre of past events and therefore, to render them more easily memorable and convincing ("as though the reader were in front of it", he said), efficiently usable between the paradigm of history intended as moral and political teaching (therefore essentially persuasive).
The choice not to represent the outcome of the event in the scene, in Bruegel's paintings, is also analogous with cartographic logic, often presented in Ortelius's circle as an *exemplum* of moral choice, as a genre associated with the so-called trope of *Hercules at the Crossroad* (Fig. 12). Alexander Grapheus in a written text in Ortelius's *Album Amicorum* of 1579, compared the atlas to this very theme; but many 17th century atlases also play iconographically on this metaphor of moral choice. As in maps, Bruegel's paintings do not indicate the solution to adopt, which remains a decision to be taken individually. As with the maps, which are not "itineraries", they presuppose the existence of infinite possible routes.
My essay (1998) on the cordiform projection of Fineus, Mercator and Ortelius,[25] for example, tried to explain with documents, that to present the world in the shape of a heart (Fig. 13, considered the centre of moral choice and also the symbol of the Family of Love) tended to represent together with the physical world the place where

the believer should have been worthy of his own salvation through his own behaviour, as already happened in medieval world maps. The theme was frequently represented in devotional prints of the Familists, assimilated to the late-ancient moral figure of the *Tabula Coebetis*, which Plantin had republished in 1585.
Evidently this is the moral preached by Sebastian Franck, followed by Ortelius, but in fact also by many others from the familist circle of Antwerp: that the human condition is an unstable condition, as is suggested by the door being made into a tray with two bearers in the *Peasant Wedding Banquet,* which runs the risk of being tipped over. In this human instability and fragility is the neostoic reminder of the *theatrum mundi* and humanity's miserable condition, where moral choice can only be an individual matter, the fruit of a personal elaboration that does not involve short cuts, nor can be prescribed in an axiomatic way. An antinomic condition that Ortelius had represented in his motto *contemno et orno,* a personalied translation of Franck's moral paradigm of *Democritus and Heraclitus* represented by Coornhert in a well-known etching (Fig. 2).

4. *Art and Nature: the physical world as moral theatre*
The definition of Bruegel given by Ortelius which appears in his *Album amicorum* has been interpreted in the light of the painter's ability to communicate moral concepts without excessively weighing down the images with abstract meanings. The fundamental references are the relationship between art and nature, which was widely addressed in the Renaissance, and Bruegel's ability, as the best exponent of Flemish painting, to produce works that, challenging nature itself, are able to rival those of the classic tradition. Todd Richardson has suggested on this subject that the orientation of Ortelius and the humanistic circle of which Bruegel was also part, was to develop a "vernacular" on a level with ancient tradition, very similar to the aesthetics of the French poets of the *Pleiade*, that is to render the language and style of the north so pliable as to be able to equal the nuances of ancient poetry.
From this point of view, Ortelius was yet again an important mediator through his relations with the English emulators of *Pleiade*, such as Philip Sidney. Sidney, pupil of Dee, who was a friend of Ortelius and Mercator, had founded in England the *Aeropagus*, an academy modelled on the French *Pleiade*, and it was in contact with Daniel Rogers, a relative of Ortelius.
The theme of art and nature was also central in Ortelius's circle. Ortelius, in his *Album amicorum*, had used the same definition for Bruegel that Plinio had used for Apelles, that he had painted pictures that could not be painted. But previously (in 1528) the same definition had been used by Erasmus about Du¨rer, and Ortelius was in his day the major expert and collector of the great German artist.
Joris Hoefnagel, Ortelius's "godson", had intended following Bruegel's lesson, electing nature as his reference. "Nature alone is master" he wrote in his first miniature, a view of Seville (Fig. 14).
This interest in nature had all the same yet again a moral and spiritual dimension, and conceived the world as theatre of divine providence.

The technique of painting was able to reproduce nature in its profound structure, as in Rudolf II's *wunderkammer,* thanks to the principle of the harmony of its parts, to the "landscape" method, van Mander's *stellingh*, considered to be the character of northern painting.
This sensibility led to a perception of an intimate relationship between geographical, anatomical and botanical atlases. All these forms of iconographic representation were "expert systems" analogous with Bruegel's landscapes, in that they were able to offer not so much a copy of reality, as a representation of different and sometimes temporary information connected to the images.
In this endeavour, botanical atlases had made use of a codification of signs and forms, on the model of the physiognomic also used by Bruegel to represent the diverse types of human sentiments: these therefore had to give account of the "characters" of the plants according to their type.
Botanists such as Leonhart Fuchs[26] and Conrad Gessner,[27] sustained that representing a plant "ad vivum" (Fig. 16, a similar concept to that of "naturally" reproducing a city and objects of nature as practiced by Hoefnagel) did not mean to trace it or "photograph" it, but to describe its composite structure according to a rhetoric-mnemonic system of codified signs. The images had become a codified system, an alphabet.
Behind this intellectual elaboration we yet again find Ortelius's circle. Ortelius was a collector of *naturalia*, as is inferred by the paintings of Frans Francken II dedicated to his collections (Fig 17). His relation Ambroius Bosschaert was among the first Dutch flower painters, and his nephew Jacob Cool, called Ortelianus, to whom a good part of Ortelius's collection was left, was also a student of botany, writer of the work, the *Syntagma herbarum* (Antwerp 1614), which was dedicated to Ortelius. He married in 1606, for the second time, the daughter of the doctor and botanist Matthias de l'Obel. In an environment very close to Plantin, at Leiden, there developed an important botanical school represented by Dodoneus and Clusius where the approach to botany often borders on the celebration of the greatness of creation and divine providence.
Joris Hoefnagel was an artist of this scientific and emblematic world and was one of Bruegel's heirs, dedicating himself to topographic and scientific drawing. To draw maps or reproduce plants meant gathering inventories of images able to represent not only the exterior shape of objects, but also their intimate structure (distances and proportions in maps; roots, leaves, flowers, colours in their different stages of flowering for plants).
Hoefnagel wanted to represent, yet again following Bruegel and Ortelius in being able to do things that were unpaintable, the unrepresentable, the deep constitutive laws of nature, of also showing that which was not immediately visible.
This scientific ambition was, in the 16th century, the project of an Italian scientific academy, the *Hermathena* Academy,[28] founded in Bologna by Achille Bocchi, who was in contact with Ortelius's circle.
Relations between Bocchi and Ortelius are documented by their common friends Scipius Fabius, Lipsius and Goropius Becanus. Scipius Fabius helped Ortelius to

draw up his map of Egypt and had been in Bologna in 1565; Goropius Becanus had known and had himself drawn by Bocchi's engraver, Giulio Bonasone; Lipsius was invited to teach at Bologna in 1595 by Ulisse Aldrovandi, Bocchi's pupil.
The same expression *Hermathena* was to be used by Hoefnagel in a drawing from the 1590s, dedicated to Ortelius (*Allegory of Hermathena,* fig. 18) in which the *Theatrum orbis terrarum* itself becomes a kind of still life, a landscape that underlines the function of Ortelian geography still in Bruegel's terms.
The atlas serves to document the variety of nature and to unify the world in a peaceful way (art has no enemies except the ignorant, is implied). The *Hermathena*, mystic union between Hermes and Athena, in fact represented the *harmonia mundi*, artifice, the capacity of art to be identical to nature (that was the identifying code of Bruegel's greatness). And to influence it like a talisman.

Notes

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